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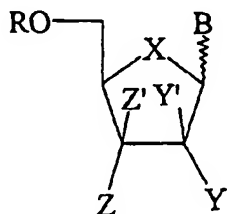
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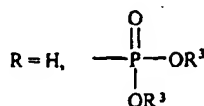
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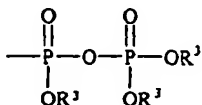
(54) Title: NUCLEOSIDES, PREPARATION THEREOF AND USE AS INHIBITORS OF RNA VIRAL POLYMERASES



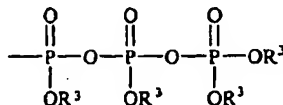
(I)



(II)



(III)



(IV)

(57) Abstract: The compounds represented by the formulae (I) wherein X is selected from the group consisting of: O, S, N-R<sup>1</sup>, and CHR<sup>1</sup>; Y and Y' is individually selected from H, OR<sup>1</sup>, NR<sup>1</sup>R<sup>2</sup>, and N<sub>3</sub>; Z and Z' is individually selected from H, OR<sup>1</sup>, and NR<sup>1</sup>R<sup>2</sup>; R = H, formula (II), formula (III), or formula (IV), R<sup>1</sup> and R<sup>2</sup> is selected from H, alkyl, acyl, aryl which may be substituted or unsubstituted, R<sup>3</sup> is selected from H, alkyl, alkenyl, alkynyl, aryl, acyloxyalkyl, and pivaloyloxyalkyl, B is selected from 5 or 6-substituted uracil or cytosine, pseudouracil, N-substituted pseudouracil, 2-thiouracil, 2-thiocytosine, 5- or 6-substituted 2-thiouracil and 2-thiocytosine, 6-azauracil, 5-azacytosine, 8-azapurines, and 7-aza-8-deazapurines. Substitutions may be halosubstituted alkyl, halosubstituted alkenyl, halosubstituted alkynyl, halosubstituted aryl, alkylthio, or NR<sup>1</sup>R<sup>2</sup>. When Z and Z' are H and Y or Y' is OH then B is not 5-methyl uracil or cytosine; and pharmaceutically acceptable salts thereof, mono, di or triphosphate and prodrugs thereof.



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NE, SN, TD, TG).

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/06551

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A01N 43/04; A61K 31/70; C07H 1/00, 15/00, 17/00, 19/00, 21/00, 23/00; C07G 11/00, 3/00;  
US CL : 514/42, 43, 45, 48, 49, 50, 51; 536/1.11, 4.1, 17.1, 22.1

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/42, 43, 45, 48, 49, 50, 51; 536/1.11, 4.1, 17.1, 22.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
WEST, REGISTRY

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category *     | Citation of document, with indication, where appropriate, of the relevant passages                             | Relevant to claim No.                       |
|----------------|--|---|
| X, P<br>—<br>Y | US 6,348,587 B1 (SCHINAZI et al) 19 February 2002 (19.02.2002), columns 10-12 and 63.                          | 1, 4-8, 14-16<br>22-23                      |
| X<br>—<br>Y    | US 6,063,628 A (LOEB et al) 16 May 2000 (16.05.2000), column 3, lines 37-67; column 10, lines 13-53.           | 1, 4-6, 15-17, 19-20<br>7-9, 11, 22-23      |
| X<br>—<br>Y    | US 5,726,174 A (KIM et al) 10 March 1998 (10.03.1998), column 3, lines 35-67; column 8, lines 19-32; column 9. | 1, 4-6, 14-16, 18, 20<br>7-8, 10, 12, 22-23 |

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☐ See patent family annex.

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"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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